

is of hybrid origin, should be referred as a synonym to *P. nivalis* Jacques, which I take to represent a hybrid between *P. pubescens* and *P. coronarius* and which then would be the valid binomial for this hybrid.

## AZALEA OR LOISELEURIA

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EVEN if Azalea in the sense of Desvaux and modern authors is not considered a distinct genus, the correct application of the generic name Azalea of Linnaeus is a question to be decided, if the name of a subgenus or section of *Rhododendron* is to be based upon it. It was therefore necessary for me, when preparing an account of the American species of *Rhododendron* with deciduous leaves, to arrive at a definite conclusion as to the species which should be considered the type of the genus Azalea. If we follow up the history of the genus we find no change of the Linnaean conception of 1753 of Azalea until 1796, when Salisbury recognized the close affinity of most of the Linnaean species of Azalea with *Rhododendron*, restricted the genus Azalea to *A. procumbens* and referred the other species as far as he had to deal with them, including *Rhodora*<sup>1</sup> to the genus *Rhododendron*, thus using the genus *Rhododendron* in the same conception as proposed later apparently independently by D. Don and accepted by Torrey, G. Don, Maximowicz and others. In 1813, however, Desvaux had made another attempt to split up the genus Azalea by removing *A. procumbens* and making it the type of his new genus *Loiseleuria*. In doing this he paid no attention to Linnaeus' original description of the genus (*Gen.*, 53 (1737), ed. 5, 75 (1754)) which applies exactly to *A. procumbens* except the description of the capsule, which Linnaeus apparently had not seen, as he did not describe or figure it in his *Flora Lapponica*, where he gives a description and figure of *A. procumbens* and also of *A. lapponica*. He took the description of the capsule probably from the figure of Tournefort's *Chamaerhododendron* (*Inst.* t. 373), which is cited as a synonym of Azalea in the first edition of *Genera plantarum*, but omitted in the second and which reappears in the fifth edition as a synonym of *Rhododendron*. He apparently had found when working out the species for his *Species plantarum* that *Rhododendron ferrugineum* had 10 stamens and not 5, as seems to be the case in Tournefort's figure. As the genus originally was based on *A. procumbens* and *A. lapponica* which were at that time the only species Linnaeus was well acquainted with, it is clear that one of them must be the type of the genus, and as the generic description in *Genera plantarum* fits *A. procumbens*, but not *A. lapponica*, the former must be considered the type of Azalea. The fruit was first correctly described and figured with three cells by Gaertner in 1788, but the erroneous impression that the fruit was

<sup>1</sup> This genus had been united already five years before with *Rhododendron* by F. S. Gmelin in the thirteenth edition of the *Systema naturae* (II. pt. 1, 694).



5-celled prevailed long after Gaertner and even G. Don in 1834 described the capsule as 5-celled.

If the result arrived at by the method of types is not considered binding by those who follow the International Rules, as the Rules do not clearly formulate or recognize this method, the fact that Salisbury retained *Azalea* for *A. procumbens* would leave no choice for those who conceive the genus *Rhododendron* in the wider sense of Salisbury and Don, as it certainly could not be considered correct if Salisbury had dropped *Azalea* entirely and coined a new generic name for *A. procumbens*. On the other hand Desvaux's action must be considered correct by those followers of the International Rules who keep *Azalea* distinct from *Rhododendron*, as in dividing the genus he left the larger number of species with *Azalea* and gave a new name to the smaller group, which agrees with article 45 of the Rules. In this case the generic name for *A. procumbens* would vary with the limitation of the genus *Rhododendron*, which shows that the method of types is more conducive to stability in nomenclature than the purely artificial division according to numbers.<sup>1</sup>

The following citation of literature and synonyms for *Azalea* L. sensu Salisbury and *Azalea* L. sensu Desvaux show that the former application of the name was accepted by most of the earlier authors; it was probably chiefly the influence of De Candolle which induced the acceptance of Desvaux's name.

#### *Azalea* L. sensu Salisbury

*Azalea* Linnaeus, *Gen.* 35 (1737); *Spec.* 150 (1753), quoad spec. typicam No. 6; *Gen.* 75 (1754). — Gaertner, *Fruct.* L. 301, t. 63, fig. 1 (1788), quoad spec. depictam. — Salisbury, *Prodr.* 286 (1796). — D. Don in *Edinb. Phil. Jour.* vi. 48 (1822). — Torrey, *Fl. N. Y.* 232 (1824). — Reichenbach apud Moessler, *Handb. Gewächsk.* i. 308 (1827); *Fl. Germ. Exc.* i. 417 (1830). — Sweet, *Hort. Brit.* ed. 2, 344 (1830). — G. Don, *Gen. Syst.* iii. 850 (1834). — Koch, *Syn. Fl. Germ.* 477 (1837). — Endlicher, *Gen.* 758 (1839). — Wood, *Classb. Bot.* 374 (1845). — Lindley, *Veg. Kingdom*, 455 (1846).

*Loiseleuria* Desvaux in *Jour. Bot. Appl.* i. 35 (1813). — Roemer & Schultes, *Syst.* iv. 353 (1819). — De Candolle, *Prodr.* vii. 714 (1839). — Spach, *Hist. Vég.* ix. 444 (1840). — Bentham & Hooker, *Gen.* ii. 595 (1876). — Gray, *Syn. Fl. N. Am.* ii. pt. i, 44 (1878). — Drude in Engler & Prantl, *Nat. Pflanzenfam.* iv. 1, 39 (1889). — Robinson & Fernald, *Gray's New Man.* 632 (1908). — Small in *N. Am. Fl.* xxix. 40 (1914).

*Chamaecistus* S. F. Gray, *Nat. Arr. Pl.* ii. 401 (1821).<sup>2</sup> — Kuntze, *Rev. Gen.* ii. 388 (1891). — Britton & Brown, *Ill. Fl.* ii. 563 (1897); ed. 2, ii. 683 (1913); *Man.* 700 (1901).

<sup>1</sup> See also my remarks on p. 45 of vol. I.

<sup>2</sup> *Chamaecistus* Oeder, *Icon. Fl. Dan.* i. 4 and 9 (1761) can hardly be considered a properly published generic name, as the nomenclature of the earlier part of the work is prelinnean; there is no generic description and only the different names for early plants are cited in chronological order—in this case *Chamaecistus* of Clusius happens to be the first name. The insertion therefore of *Loiseleuria* in the list of *Nomina conservanda* was unnecessary, but this cannot change the fact that it is now a *nomen conservandum*.



**Azalea** L. sensu Desvaux

*Azalea* Linnaeus, *Spec.* 150 (1753), quoad species 1-4. — Desvaux in *Jour. Bot. Appl.* I. 35 (1813). — Roemer & Schultes, *Syst.* IV. 374 (1819), spec. 12 et 13 exclud. — De Candolle, *Prodr.* VII. 715 (1839). — Gray, *Man.* 268 (1848). — K. Koch, *Dendr.* II. 1, 171 (1872). — Britton and Brown, *Ill. Fl.* II. 559 (1897). — Rehder in Bailey, *Cycl. Am. Hort.* I. 119 (1900). — Britton, *Man.* 698 (1901). — Small in *N. Am. Fl.* XXIX. 41 (1914).

*Tsutsusi* Adanson, *Fam. Pl.* II. 164 (1763).

*Anthodendron* Reichenbach in Moessler, *Handb. Gewächsk.* I. 244, 308 (1827); *Fl. Germ. Exc.* 416 (1831).

Though *Azalea* must be considered the oldest name for the genus as shown by the synonymy and the remarks above, the name *Loiseleuria* should be retained by those who follow the International Rules of Botanical Nomenclature, as it is one of the *Nomina conservanda*. If, however, a name is considered a *nomen conservandum* in regard to the *nomen rejiciendum* which in this case is *Chamaecistus* Oeder, one may maintain that *Loiseleuria* has preference only as far as it concerns *Chamaecistus* and that the introduction of an entirely new question of priority alters the case which should then be decided according to the law of priority and without regard to the list of *nomina conservanda*. This opinion is held by some botanists who are conscientious followers of the International Rules and for an exposé of the reasons for this viewpoint I refer to the remarks on the nomenclature of *Wikstroemia* Schrad. by S. F. Blake in the Contributions from the Gray Herbarium LIII. 36. It seems, however, to me that it is more advisable to consider the *nomina conservanda*, according to art. 20 of the Rules, names "which must be retained in all cases," or "en tous cas," as the original French text says, which seems to express it even more strongly, as does also the Latin title of the list which reads "*Indices nominum genericorum utique conservandorum.*"

By those who consider the genus corresponding to *Azalea* of Desvaux a distinct genus including *Rhodora*, the latter name would be the correct name of the whole genus, and *Tsutsusi* Adanson with *Azalea indica* as type, if *Rhodora* is excluded, or *Anthodendron* Reichenbach with *A. ponticum* as type if *Rhodora* as well as *Azalea indica* are excluded. Britton and Small cite *A. indica* as type species of *Azalea*, but according to Canon 15, b. and d. of the Philadelphia Code, the choice should be between *A. lapponica* and *A. procumbens* rather than a species which was unknown to Linnaeus except from literature.

The conclusion to be deduced from the preceding remarks may be summed up as follows:

*Azalea* Linnaeus is based chiefly on *A. procumbens* which must be considered the type of the genus.

According to the International Rules, *Loiseleuria* which also is based on *A. procumbens* is a *nomen conservandum* and therefore the name to



be adopted for *A. procumbens*; *Azalea* Linnaeus thus becomes a synonym of *Loiseleuria*.

According to the Philadelphia Code *Azalea* Linnaeus must be considered the valid name for the genus now generally called *Loiseleuria* and the name *Azalea* in the conception of Britton and Small must be replaced by *Tsutsusi* Adanson.

The subgeneric or sectional name *Azalea* of Planchon under the genus *Rhododendron* is based on species of *Azalea* L. sensu Desvaux, which I do not consider a valid name in this conception, and it is, moreover, antedated by G. Don's and Endlicher's sectional and subgeneric names *Pentanthera* and *Anthodendron*; therefore *Azalea* should not be used as a sectional or subgeneric name under *Rhododendron*.

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## THE "INDIAN AZALEAS" AT MAGNOLIA GARDENS

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THE Magnolia Gardens near Charleston, South Carolina, are among the remarkable gardens of the South and are specially famous for their Azaleas. On April 16th my colleague, Alfred Rehder, visited these gardens and made herbarium specimens of all the varieties then in flower. The collection is of great interest as it represents very completely the "Indian Azaleas" known to the gardens of the 40's and 50's of last century. From most modern gardens these varieties have been lost though nearly all are represented in that at Holm Lea, Brookline, Mass. Miss Marie C. Hastie, granddaughter of the founder of Magnolia Gardens, obligingly informs us that the first planting of Azaleas was made by her grandfather about 1850. The importation came by way of Philadelphia and included plants of *Azalea indica* sent for the special purpose of trying them in South Carolina. Later, plants were secured from the Bercksmanns' Nursery, Augusta, Georgia. Many of the original plants are still growing in Magnolia Gardens, and by successful layering quantities have been obtained and the collection largely increased. The older plants are now much crowded and the largest measure from 16 to 18 feet in height and from 14 to 16 feet through. The largest plants are *R. phoeniceum* G. Don and its forms which are richly represented. Apart from the typical species there is the form *semiduplex* Wils. with double flowers; also one with white flowers which I have not seen before. Other forms are f. *splendens* Wils. (*R. phoeniceum* var. *splendens* D. Don), f. *Smithii* Wils. (*R. pulchrum* Sweet), which were raised in England and introduced into America in 1835 and 1836 and var. *calycinum* Wils. (*A. indica calycina* Lindl.) with very large, rich magenta-colored flowers which was introduced from China into England by R. Fortune about 1850. Of the true *R. indicum* Sweet (*Azalea indica* L.) several color forms are growing at Magnolia including the famous f. *variegatum* DC. which was introduced into England from China in 1833 to Knight's Nursery and into Boston,